

## TENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
 United States Patent and Trademark  
 Office  
 Box PCT  
 Washington, D.C.20231  
 ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 17 April 2000 (17.04.00)	
International application No. PCT/IL99/00412	Applicant's or agent's file reference 077/01080
International filing date (day/month/year) 27 July 1999 (27.07.99)	Priority date (day/month/year) 27 July 1998 (27.07.98)
Applicant PAZ, Ofir et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

07 February 2000 (07.02.00)

☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO  
 34, chemin des Colombettes  
 1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

S. Mafla

Telephone No.: (41-22) 338.83.38

BEST AVAILABLE COPY

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

FENSTER, Paul  
Fenster & Company Patent  
Attorneys, Ltd.  
P.O. Box 10256  
49002 Petach Tikva  
ISRAËL

Date of mailing (day/month/year) 16 February 2001 (16.02.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 077/01080	
International application No. PCT/IL99/00412	International filing date (day/month/year) 27 July 1999 (27.07.99)

## 1. The following indications appeared on record concerning:

☒ the applicant ☐ the inventor ☐ the agent ☐ the common representative

## Name and Address

PEACH NETWORKS, LTD.  
P.O. Box 212  
60200 Or-Yehuda  
Israel

## State of Nationality

IL

## State of Residence

IL

## Telephone No.

+972 (3) 634-4544

## Facsimile No.

+972 (3) 634-4543

## Teleprinter No.

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☒ the person ☒ the name ☒ the address ☒ the nationality ☒ the residence

## Name and Address

WEBTV NETWORKS, INC.  
1065 La Avenida Avenue  
Mountain View, CA 94043  
United States of America

## State of Nationality

US

## State of Residence

US

## Telephone No.

## Facsimile No.

## Teleprinter No.

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Athina Nickitas-Etienne

Telephone No.: (41-22) 338.83.38

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

FENSTER, Paul  
Fenster & Company Patent  
Attorneys, Ltd.  
P.O. Box 10256  
49002 Petach Tikva  
ISRAËL

Date of mailing (day/month/year) 16 February 2001 (16.02.01)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference 077/01080	
International application No. PCT/IL99/00412	International filing date (day/month/year) 27 July 1999 (27.07.99)

1. The following indications appeared on record concerning:	
<input checked="" type="checkbox"/> the applicant <input type="checkbox"/> the inventor <input type="checkbox"/> the agent <input type="checkbox"/> the common representative	
Name and Address PEACH NETWORKS, LTD. P.O. Box 212 60200 Or-Yehuda Israel	State of Nationality IL
	State of Residence IL
	Telephone No. +972 (3) 634-4544
	Facsimile No. +972 (3) 634-4543
Teleprinter No.	
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:	
<input checked="" type="checkbox"/> the person <input checked="" type="checkbox"/> the name <input checked="" type="checkbox"/> the address <input checked="" type="checkbox"/> the nationality <input checked="" type="checkbox"/> the residence	
Name and Address WEBTV NETWORKS, INC. 1065 La Avenida Avenue Mountain View, CA 94043 United States of America	State of Nationality US
	State of Residence US
	Telephone No.
	Facsimile No.
Teleprinter No.	
3. Further observations, if necessary:	
4. A copy of this notification has been sent to:	
<input checked="" type="checkbox"/> the receiving Office <input type="checkbox"/> the designated Offices concerned <input type="checkbox"/> the International Searching Authority <input checked="" type="checkbox"/> the elected Offices concerned <input checked="" type="checkbox"/> the International Preliminary Examining Authority <input type="checkbox"/> other:	

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	Authorized officer  Athina Nickitas-Etienne  Telephone No.: (41-22) 338.83.38
---	---

## TENT COOPERATION TRE, Y

PCT

NOTIFICATION CONCERNING  
AMENDMENTS OF THE CLAIMS(PCT Rule 62 and  
Administrative Instructions, Section 417)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C.20231  
ETATS-UNIS D'AMERIQUE

in its capacity as International Preliminary Examining Authority

Date of mailing (day/month/year)  
17 April 2000 (17.04.00)International application No.  
PCT/IL99/00412International filing date (day/month/year)  
27 July 1999 (27.07.99)

Applicant

PEACH NETWORKS, LTD. et al

The International Bureau hereby informs the International Preliminary Examining Authority that no amendments under Article 19 have been received by the International Bureau (Administrative Instructions, Section 417).

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer

S. Mafla

Telephone No. (41-22) 338.83.38

DATE: 29 JAN 2001

WIPO PCT

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 077/01080	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IL99/00412	International filing date (day/month/year) 27 JULY 1999	Priority date (day/month/year) 27 JULY 1998
International Patent Classification (IPC) or national classification and IPC IPC(7): H04N 7/16, 7/173 and US Cl.: 725/32		
Applicant PEACH NETWORKS, LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets.
- ☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of 5 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 07 FEBRUARY 2000	Date of completion of this report 01 JANUARY 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer JOHN W. MILLER
Facsimile No. (703) 305-3230	Telephone No. (703) 305-4798

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IL99/00412

## I. Basis of the report

## 1. With regard to the elements of the international application: \*

☐ the international application as originally filed☒ the description:

pages (See Attached)

, as originally filed

pages , filed with the demand

pages , filed with the letter of

☒ the claims:

pages (See Attached)

, as originally filed

pages , as amended (together with any statement) under Article 19

pages , filed with the demand

pages , filed with the letter of

☒ the drawings:

pages (See Attached)

, as originally filed

pages , filed with the demand

pages , filed with the letter of

☒ the sequence listing part of the description:

pages (See Attached)

, as originally filed

pages , filed with the demand

pages , filed with the letter of

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☒ The amendments have resulted in the cancellation of:☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/fig NONE5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\*Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IL99/00412

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. statement

Novelty (N)

Claims 1-47 YES  
Claims NONE NO

Inventive Step (IS)

Claims 1-47 YES  
Claims NONE NO

Industrial Applicability (IA)

Claims 1-47 YES  
Claims NONE NO

### 2. citations and explanations (Rule 70.7)

Claims 1-47 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest providing a personalized broadcast video stream by generating overlay data at a central distribution point, transmitting the personalized broadcast stream to the user using a compressed video transport, and overlaying the overlay data at the set top box of the user, wherein at least some of the overlay data is not a block-replacement overlay. The newly cited Hooper et al (5,422,674) reference, which is the most relevant art of record, discloses the transmission of personalized menu features yet does so in the context of a block-replacement overlay. Further, given the particular use of MPEG compression to provide overlays in Hooper, there is no suggestion to modify the scheme with a non block-replacement technique. Further, the prior art does not teach or fairly suggest the personalization of a broadcast data stream at a central distribution station in a manner that selectively reduces the visual quality of the stream, while adding personalized information, and the transmission of the broadcast stream to the user using a compressed transport. The prior art neither teaches nor suggests the selective degradation of broadcast data stream visual quality in addition to including personalized information.

#### ----- NEW CITATIONS -----

US 5,422,674 A (HOOPER et al) 06 June 1995, see whole document.

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**I. BASIS OF REPORT:**

This report has been drawn on the basis of the description,  
page(s) 1-45, as originally filed.  
page(s) NONE, filed with the demand.  
and additional amendments:  
NONE

This report has been drawn on the basis of the claims,  
page(s) NONE, as originally filed.  
page(s) NONE, as amended under Article 19.  
page(s) NONE, filed with the demand.  
and additional amendments:  
Pages 46-50, filed with the letter of 29 November 2000.

This report has been drawn on the basis of the drawings,  
page(s) 1-5, as originally filed.  
page(s) NONE, filed with the demand.  
and additional amendments:  
NONE

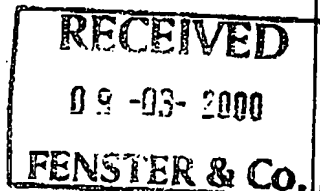
This report has been drawn on the basis of the sequence listing part of the description:  
page(s) NONE, as originally filed.  
pages(s) NONE, filed with the demand.  
and additional amendments:  
NONE



# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: PAUL FENSTER  
FENSTER & COMPANY PATENT ATTORNEYS, LTD.  
P.O. BOX 10256  
PETACH TIKVA, ISRAEL 49002



## PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT  
OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 077/01080	Date of Mailing (day/month/year) <b>14 JAN 2000</b>
International application No. PCT/IL99/00412	International filing date (day/month/year) 27 JULY 1999
Applicant PEACH NETWORKS, LTD.	
<b>FOR FURTHER ACTION    See paragraphs 1 and 4 below</b>	

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.

**Filing of amendments and statement under Article 19:**  
 The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO  
 34, chemin des Colombettes  
 1211 Geneva 20, Switzerland  
 Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.  
☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90 bis 1 and 90 bis 3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer SAM HUANG <i>Joni Hill</i>
Facsimile No. (703) 305-3230	Telephone No. (703) 305-0627

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 077/01080	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/IL99/00412	International filing date (day/month/year) 27 JULY 1999	(Earliest) Priority Date (day/month/year) 27 JULY 1998
Applicant PEACH NETWORKS, LTD.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (See Box I).
2. ☐ Unity of invention is lacking (See Box II).
3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing
  - ☐ filed with the international application.
  - ☐ furnished by the applicant separately from the international application.
    - ☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.
  - ☐ transcribed by this Authority.
4. With regard to the title, ☒ the text is approved as submitted by the applicant.  
☐ the text has been established by this Authority to read as follows:
5. With regard to the abstract,
  - ☐ the text is approved as submitted by the applicant.
  - ☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. The figure of the drawings to be published with the abstract is:  
Figure No. 5
  - ☒ as suggested by the applicant.
  - ☐ because the applicant failed to suggest a figure.
  - ☐ because this figure better characterizes the invention.☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IL99/00412

Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

A method of personalizing a broadcast channel, comprising:  
receiving an input from a user (110); and personalizing the broadcast channel; and  
transmitting the personalized broadcast channel to the user using a compressed  
video transport method. Preferably, computer generated information is overlaid on  
the channel to achieve the personalization.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IL99/00412

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(6) : H04N 7/16, 7/173 US CL : 348/10, 12, 13; 455/6.1, 6.2 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 348/6, 10, 12, 13, 460, 461, 465, 468, 469, 473; 455/3.1, 5.1, 6.1, 6.2, 6.3  Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	WO 97/12486 A (SLEZAK) 03 April 1997, Figures 1, 2, 5, 7, 9, pages 2-4, 6-10, 14-23.	1-17, 19-25, 30-41 ----- 18, 26-29
Y	US 4,963,030 A (MAKUR) 16 October 1990, see Abstract	18
Y	US 5,761,606 A (WOLZIEN) 02 June 1998, cols. 3, 4.	26-29
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* *A* *B* *L* *O* *P*	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance earlier document published on or after the international filing date document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed	*T* *X* *Y* *G* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family
Date of the actual completion of the international search 17 NOVEMBER 1999		Date of mailing of the international search report 14 JAN 2000
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer SAM HUANG Jan Hill Telephone No. (703) 305-0627

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IL99/00412

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(6) : H04N 7/16, 7/173 US CL : 348/10, 12, 13; 455/6.1, 6.2 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 348/6, 10, 12, 13, 460, 461, 465, 468, 469, 473; 455/3.1, 5.1, 6.1, 6.2, 6.3  Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	WO 97/12486 A (SLEZAK) 03 April 1997, Figures 1, 2, 5, 7, 9, pages 2-4, 6-10, 14-23.	1-17, 19-25, 30-41 ----- 18, 26-29
Y	US 4,963,030 A (MAKUR) 16 October 1990, see Abstract	18
Y	US 5,761,606 A (WOLZIEN) 02 June 1998, cols. 3, 4.	26-29
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* "A" "B" "L" "O" "P"	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance earlier document published on or after the international filing date document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "A" document member of the same patent family
Date of the actual completion of the international search 17 NOVEMBER 1999		Date of mailing of the international search report 14 JAN 2000
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer SAM HUANG Jan Hill Telephone No. (703) 305-0627

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: PAUL FENSTER  
FENSTER & COMPANY PATENT ATTORNEYS,  
LTD.  
P.O. BOX 10256  
PETACH TIKVA, ISRAEL 49002

## PCT

### NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing  
(day/month/year) **10 JAN 2001**

Applicant's or agent's file reference

077/01080

#### IMPORTANT NOTIFICATION

International application No.

PCT/IL99/00412

International filing date (day/month/year)

27 JULY 1999

Priority Date (day/month/year)

27 JULY 1998

Applicant

PEACH NETWORKS, LTD.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

ANDREW FAIRB

Telephone No. (703) 305-0627

Form PCT/IPEA/416 (July 1992) \*

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 077/01080	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IL99/00412	International filing date (day/month/year) 27 JULY 1999	Priority date (day/month/year) 27 JULY 1998
International Patent Classification (IPC) or national classification and IPC IPC(7): H04N 7/16, 7/173 and US Cl.: 725/32		
Applicant PEACH NETWORKS, LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

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- I ☒ Basis of the report
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- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  07 FEBRUARY 2000	Date of completion of this report  01 JANUARY 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231  Facsimile No. (703) 305-3230	Authorized officer  JOHN W. MILLER <i>Rugenia Zagan</i> Telephone No. (703) 305-4750

Form PCT/IPEA/409 (cover sheet) (July 1998) \*

International application No.

### **I. Basis of the report**

- ☐ the international application as originally filed
- ☒ the description:
- pages \_\_\_\_\_ (See Attached) \_\_\_\_\_, as originally filed
- pages \_\_\_\_\_, filed with the demand
- pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

- ☒ the claims:  
 pages \_\_\_\_\_ (See Attached) \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement) under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

- ☒ the drawings:  
 pages \_\_\_\_\_ (See Attached) \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

- ☒ the sequence listing part of the description:  
 pages \_\_\_\_\_ (See Attached) \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

- These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE  
☒ the claims, Nos. NONE  
☒ the drawings, sheets/fig NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\*Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.



## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IL99/00412

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. statement

Novelty (N)

Claims	<u>1-47</u>	YES
Claims	<u>NONE</u>	NO

Inventive Step (IS)

Claims	<u>1-47</u>	YES
Claims	<u>NONE</u>	NO

Industrial Applicability (IA)

Claims	<u>1-47</u>	YES
Claims	<u>NONE</u>	NO

## 2. citations and explanations (Rule 70.7)

Claims 1-47 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest providing a personalized broadcast video stream by generating overlay data at a central distribution point, transmitting the personalized broadcast stream to the user using a compressed video transport, and overlaying the overlay data at the set top box of the user, wherein at least some of the overlay data is not a block-replacement overlay. The newly cited Hooper et al (5,422,674) reference, which is the most relevant art of record, discloses the transmission of personalized menu features yet does so in the context of a block-replacement overlay. Further, given the particular use of MPEG compression to provide overlays in Hooper, there is no suggestion to modify the scheme with a non block-replacement technique. Further, the prior art does not teach or fairly suggest the personalization of a broadcast data stream at a central distribution station in a manner that selectively reduces the visual quality of the stream, while adding personalized information, and the transmission of the broadcast stream to the user using a compressed transport. The prior art neither teaches nor suggests the selective degradation of broadcast data stream visual quality in addition to including personalized information.

## ----- NEW CITATIONS -----

US 5,422,674 A (HOOPER et al) 06 June 1995, see whole document.

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**I. BASIS OF REPORT:**

This report has been drawn on the basis of the description,  
page(s) 1-45, as originally filed.  
page(s) NONE, filed with the demand,  
and additional amendments:  
NONE

This report has been drawn on the basis of the claims,  
page(s) NONE, as originally filed.  
page(s) NONE, as amended under Article 19.  
page(s) NONE, filed with the demand,  
and additional amendments:  
Pages 46-50, filed with the letter of 29 November 2000.

This report has been drawn on the basis of the drawings,  
page(s) 1-5, as originally filed.  
page(s) NONE, filed with the demand.  
and additional amendments:  
NONE

This report has been drawn on the basis of the sequence listing part of the description:  
page(s) NONE, as originally filed.  
pages(s) NONE, filed with the demand.  
and additional amendments:  
NONE

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## CLAIMS

1. A method of personalizing a broadcast video stream, comprising:  
providing a broadcast video stream;  
5 personalizing the stream by generating overlay data at a central distribution station;  
transmitting the personalized broadcast stream to the user using a compressed video  
transport; and  
overlaying said overlay data at a set-top box of said user, wherein at least some of said  
overlay data is not a block-replacement overlay.  
10
2. A method according to claim 1, wherein said overlay data comprises opaque data that  
visually replaces underlying information.
3. A method according to claim 1, wherein said overlay data comprises transparent data  
15 that visually combines underlying information.
4. A method according to claim 1, wherein said transmitting comprises transmitting in a  
broadcast system, whereby the personalized transmitted stream reaches a plurality of  
subscribers.  
20
5. A method according to claim 4, wherein only a designated user can view said  
personalized stream.
6. A method according to claim 1, wherein said personalization makes said stream  
25 interactive.
7. A method according to claim 1, comprising receiving a user input at said central  
distribution station.
- 30 8. A method according to claim 7, wherein said input comprises a response to content of a  
personalized stream.

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9. A method according to claim 7, comprising determining an identification of a user for which to perform said personalization, from said user input.
10. A method according to claim 9, wherein said user input comprises a user login ID.
- 5 11. A method according to claim 1, wherein said video stream is provided as a compressed video stream.
12. A method according to claim 1, wherein said stream is transmitted using a single  
10 channel of said transport.
13. A method according to claim 1, wherein said personalizing comprises modifying a visual portion of said stream.
- 15 14. A method according to claim 1, wherein said personalizing comprises modifying a data section of said transport, for application by a set-top box at said user.
15. A method according to claim 14, wherein modifying said data section comprises adding display commands for said set-top box to said data section.
- 20 16. A method according to claim 14, wherein modifying said data section comprises adding a compressed overlay for said set-top box to overlay, to said data section.
17. A method according to claim 16, wherein said overlay is compressed using a vector  
25 quantization method.
18. A method according to claim 16, wherein said overlay is compressed using a chain code compression method.
- 30 19. A method according to claim 16, wherein said compression does not transmit data corresponding to overlay blocks which do not change between frames.

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20. A method according to claim 14, wherein modifying said data section comprises adding replacement image blocks for said set-top box to use for replacing blocks of said stream, to said data section.

5 21. A method according to any of claims 1-20, wherein said personalization comprises adding an output from a computer program.

22. A method according to any of claims 1-20, wherein said personalization comprises adding information from an Internet source.

10

23. A method according to claim 21, wherein said computer program comprises an e-mail program.

15 24. A method according to claim 21, wherein said computer program comprises an Internet browser.

25. A method according to claim 1, wherein personalizing said stream comprises not modifying an audio section of the stream, such that said audio can be used by a plurality of different personalizations of the stream.

20

26. A method according to claim 1, wherein personalizing said stream comprises modifying an audio section of the stream.

25 27. A method according to claim 26, wherein said modifying comprises adding feedback for user interactions to said audio.

28. A method according to claim 26, wherein said modifying comprises modifying only a single channel of two channels of said audio.

30 29. A method according to claim 26, wherein said modifying comprises enhancing said audio.

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30. A method according to claim 1, wherein personalizing said stream comprises enhancing a video display of said stream.

31. A method of personalizing a broadcast stream, comprising:

- 5 providing a broadcast video stream;  
personalizing the stream at a central distribution station in a manner that selectively reduces a visual quality of said provided video stream, while adding personalized information;  
and  
transmitting the personalized broadcast stream to the user using a compressed video  
10 transport.

32. A method according to claim 31, wherein said quality is reduced to maintain a bandwidth requirement of said stream in said transport.

15 33. A method according to claim 31, wherein said quality is reduced once for a plurality of personalizations.

34. A method according to claim 31, wherein personalizing said stream comprises showing data side by side with a reduced version of said stream.

20

35. A method according to claim 31, wherein personalizing said stream comprises overlaying data on said stream.

36. A method according to claim 35, wherein said data is shown as a ticker.

25

37. A method according to claim 31, wherein personalizing said stream comprises:  
providing a list of display commands;  
generating a compressed video stream from said commands; and  
combining said compressed video stream and said broadcast stream.

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38. A method according to claim 37, wherein said generating comprises directly generating transform coefficients from said commands.

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39. A method according to claim 31, wherein said personalized information is physically added at a set-top of said user.
40. A method according to claim 39, wherein said personalized information is transmitted  
5 as overlay data.
41. A method according to claim 39, wherein said personalized information is transmitted as display commands.
- 10 42. A method according to any of claims 1-41, wherein said stream is compressed using an MPEG compliant compression scheme.
43. A method according to claim 42, wherein said MPEG comprises MPEG II.
- 15 44. A method according to any of claims 1-41, wherein said compressed video transport comprises an MPEG compliant transport.
45. A method according to claim 44, wherein said MPEG comprises MPEG II.
- 20 46. A method according to any of claims 1-41, wherein said central distribution station comprises a cable network head-end.
47. A method according to any of claims 1-41, wherein said compressed video transport comprises a cable network transport.

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## CLAIMS

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1. A method of personalizing a broadcast video stream, comprising:  
providing a broadcast video stream;  
5 personalizing the stream by generating overlay data at a central distribution station;  
transmitting the personalized broadcast stream to the user using a compressed video  
transport; and  
overlaying said overlay data at a set-top box of said user, wherein at least some of said  
overlay data is not a block-replacement overlay.
- 10 2. A method according to claim 1, wherein said overlay data comprises opaque data that  
visually replaces underlying information.
3. A method according to claim 1, wherein said overlay data comprises transparent data  
15 that visually combines underlying information.
4. A method according to claim 1, wherein said transmitting comprises transmitting in a  
broadcast system, whereby the personalized transmitted stream reaches a plurality of  
subscribers.
- 20 5. A method according to claim 4, wherein only a designated user can view said  
personalized stream.
6. A method according to claim 1, wherein said personalization makes said stream  
25 interactive.
7. A method according to claim 1, comprising receiving a user input at said central  
distribution station.
- 30 8. A method according to claim 7, wherein said input comprises a response to content of a  
personalized stream.



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9. A method according to claim 7, comprising determining an identification of a user for which to perform said personalization, from said user input.
10. A method according to claim 9, wherein said user input comprises a user login ID.
- 5 11. A method according to claim 1, wherein said video stream is provided as a compressed video stream.
12. A method according to claim 1, wherein said stream is transmitted using a single  
10 channel of said transport.
13. A method according to claim 1, wherein said personalizing comprises modifying a visual portion of said stream.
- 15 14. A method according to claim 1, wherein said personalizing comprises modifying a data section of said transport, for application by a set-top box at said user.
15. A method according to claim 14, wherein modifying said data section comprises adding display commands for said set-top box to said data section.
- 20 16. A method according to claim 14, wherein modifying said data section comprises adding a compressed overlay for said set-top box to overlay, to said data section.
17. A method according to claim 16, wherein said overlay is compressed using a vector  
25 quantization method.
18. A method according to claim 16, wherein said overlay is compressed using a chain code compression method.
- 30 19. A method according to claim 16, wherein said compression does not transmit data corresponding to overlay blocks which do not change between frames.

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20. A method according to claim 14, wherein modifying said data section comprises adding replacement image blocks for said set-top box to use for replacing blocks of said stream, to said data section.
- 5 21. A method according to any of claims 1-20, wherein said personalization comprises adding an output from a computer program.
22. A method according to any of claims 1-20, wherein said personalization comprises adding information from an Internet source.
- 10 23. A method according to claim 21, wherein said computer program comprises an e-mail program.
24. A method according to claim 21, wherein said computer program comprises an Internet  
15 browser.
25. A method according to claim 1, wherein personalizing said stream comprises not modifying an audio section of the stream, such that said audio can be used by a plurality of different personalizations of the stream.
- 20 26. A method according to claim 1, wherein personalizing said stream comprises modifying an audio section of the stream.
27. A method according to claim 26, wherein said modifying comprises adding feedback  
25 for user interactions to said audio.
28. A method according to claim 26, wherein said modifying comprises modifying only a single channel of two channels of said audio.
- 30 29. A method according to claim 26, wherein said modifying comprises enhancing said audio.

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30. A method according to claim 1, wherein personalizing said stream comprises enhancing a video display of said stream.
31. A method of personalizing a broadcast stream, comprising:  
5 providing a broadcast video stream;  
personalizing the stream at a central distribution station in a manner that selectively reduces a visual quality of said provided video stream, while adding personalized information; and  
transmitting the personalized broadcast stream to the user using a compressed video  
10 transport.
32. A method according to claim 31, wherein said quality is reduced to maintain a bandwidth requirement of said stream in said transport.
- 15 33. A method according to claim 31, wherein said quality is reduced once for a plurality of personalizations.
34. A method according to claim 31, wherein personalizing said stream comprises showing data side by side with a reduced version of said stream.
- 20 35. A method according to claim 31, wherein personalizing said stream comprises overlaying data on said stream.
36. A method according to claim 35, wherein said data is shown as a ticker.
- 25 37. A method according to claim 31, wherein personalizing said stream comprises:  
providing a list of display commands;  
generating a compressed video stream from said commands; and  
combining said compressed video stream and said broadcast stream.
- 30 38. A method according to claim 37, wherein said generating comprises directly generating transform coefficients from said commands.

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39. A method according to claim 31, wherein said personalized information is physically added at a set-top of said user.
40. A method according to claim 39, wherein said personalized information is transmitted as overlay data.
41. A method according to claim 39, wherein said personalized information is transmitted as display commands.
42. A method according to any of claims 1-41, wherein said stream is compressed using an MPEG compliant compression scheme.
43. A method according to claim 42, wherein said MPEG comprises MPEG II.
44. A method according to any of claims 1-41, wherein said compressed video transport comprises an MPEG compliant transport.
45. A method according to claim 44, wherein said MPEG comprises MPEG II.
46. A method according to any of claims 1-41, wherein said central distribution station comprises a cable network head-end.
47. A method according to any of claims 1-41, wherein said compressed video transport comprises a cable network transport.

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